

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for forming a compact from a powder, comprising the steps of:

applying a solution obtained by dissolving a lubricant in a solvent to a forming portion of a mold body;

evaporating the solution to form a crystallized layer on a surface of the forming portion; by

filling a-the forming portion-formed in-a of the mold body with a raw powder; and then

fitting upper and lower punches into the forming portion, comprising the steps of:

applying a solution obtained by dissolving a lubricant in a solvent to the forming portion prior to filling the forming portion with a raw powder; and

evaporating the solution thus applied to thereby to form a crystallized layer on the surface of the forming portion.

Claim 2 (original): The method for forming a compact from a powder according to claim 1, wherein the lubricant comprises an oxo-acid-based metal salt.

Claim 3 (currently amended): The method for forming a compact from a powder according to claim 1, wherein the lubricant is at least one selected from a group consisting of a phosphate metal salt, a sulfate metal salt, a borate metal salt, a silicate metal salt, a tungstate metal salt, an organic-acid-based metal salt, a nitrate metal salt and a carbonate metal salt.

Claim 4 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is at least one selected from a group consisting of dipotassium hydrogen phosphate, disodium hydrogen phosphate, tripotassium phosphate, trisodium phosphate, potassium

polyphosphate, sodium polyphosphate, riboflavin potassium phosphate and riboflavin sodium phosphate.

Claim 5 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is at least one selected from a group consisting of potassium sulfate, sodium sulfate, potassium sulfite, sodium sulfite, potassium thiosulfate, sodium thiosulfate, potassium dodecyl sulfate, sodium dodecyl sulfate, potassium dodecylbenzenesulfonate, sodium dodecylbenzenesulfonate, Food Blue No.1., Food Yellow No.5., potassium ascorbyl sulfate and sodium ascorbyl sulfate.

Claim 6 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is potassium tetraborate or sodium tetraborate.

Claim 7 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is potassium silicate or sodium silicate.

Claim 8 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is potassium tungstate or sodium tungstate.

Claim 9 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is at least one selected from a group consisting of potassium acetate, sodium acetate, potassium benzoate, sodium benzoate, potassium ascorbate, sodium ascorbate, potassium stearate and sodium stearate.

Claim 10 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is potassium nitrate or sodium nitrate.

Claim 11 (original): The method for forming a compact from a powder according to claim 3, wherein the lubricant is at least one of potassium carbonate, sodium carbonate, potassium hydrogen carbonate and sodium hydrogen carbonate.

Claim 12 (canceled).

Claim 13 (currently amended): The method for forming a compact from a powder according to claim 1 2 to 12, wherein said solution is the one in which has said lubricant is completely dissolved in water so as to have a concentration greater than or equal to a concentration defined by one molecule of the lubricant forming the thickness of the at which the thickness of a crystallized layer is formed by one molecule of the lubricant, but less than a concentration of a saturated solution.

Claim 14 (currently amended): The method for forming a compact from a powder according to claim 13, wherein the lubricant is a potassium salt or a sodium salt.

Claim 15 (currently amended): The method for forming a compact from a powder set forth in claim 1 one of claims 2 to 14, wherein an antiseptic substance is added into the lubricant.

Claim 16 (currently amended): The method for forming a compact from a powder set forth in claim 1 one of claims 2 to 15, wherein a defoaming agent is added into the lubricant.

Claim 17 (currently amended): The method for forming a compact from a powder set forth in claim 1 one of claims 2 to 16, wherein soluble solvent is added into the lubricant.

Claim 18 (original): The method for forming a compact from a powder according to claim 17, wherein said solvent is alcohol or ketone.

Claim 19 (currently amended): The method for forming a compact from a powder according to claim 1-claims 2 to 18, wherein no halogen element is included in the lubricant.

Claim 20 (currently amended): A mold apparatus for powder molding, comprising:
a mold body with a through-hole for forming a side of a compact;
a lower punch ~~to be fitted for fitting~~ into the through-hole from beneath;
an upper punch ~~to be fitted for fitting~~ into the through-hole from above;
a spray pump ~~from which for spraying~~ a lubricant solution ~~is sprayed~~ to the through-hole;
a heater provided around a forming portion of the mold body, the forming portion being defined by the through-hole and the lower punch; and
a temperature control system for keeping a temperature of the heater higher than an evaporating temperature of the solution.

Claim 21 (currently amended): A mold apparatus for powder molding, comprising:
a mold body with a through-hole for forming a side of a compact;
a lower punch ~~to be fitted for fitting~~ into the through-hole from beneath;
an upper punch ~~to be fitted for fitting~~ into the through-hole from above;
a spray pump ~~from which for spraying~~ a lubricant solution ~~is sprayed~~ to the through-hole;
a heater provided around a forming portion of the mold body, the forming portion being defined by the through-hole and the lower punch; and
a temperature control system for keeping a temperature of the heater higher than an evaporating temperature of the solution, but lower than a melting temperature of the lubricant.